

Happy belated Valentine's Day from your MICA trainers, Andy Hunter and Becca Mickels! In addition to purchasing cards and chocolates, many of you may have been busy preparing information for American Heart Month. We can help by guiding you to data on heart health in your community.

The **Heart Disease Profile** contains **County-Level Study** and **Behavioral Risk Factor Surveillance System (BRFSS)** estimates on the number of people in your community with risk factors for heart disease, as well as statistics on heart disease mortality, hospitalizations, ER visits, and hospital utilization. The **Women's Health Profile** and the **Minority Health Profile** provide statistics on heart disease among those populations.

Several Data MICAs contain information on heart disease, including **Chronic Disease MICA**, **Death MICA**, **Emergency Room MICA**, **Hospital Discharges, Charges & Days of Care MICA**, and **Inpatient Hospitalization MICA**.

MICA TIP: On the query screen, look for an indicator related to heart disease in general, such as *Heart and circulation*. On the resulting general table, click on the hyperlinked label . . .

Inpatient Hospitalizations: Residents of Missouri		
Year		
2009		
Diagnosis	Number of Discharges	Rate
Heart and circulation	131,528	198.4
Rates per 10,000		
Age adjustment uses 2000 Standard Population		
Rotate	Download	

. . . to reveal more specific diagnosis categories. You may need to drill down a second time to find the exact diagnosis you need.

Inpatient Hospitalizations: Residents of Missouri		
Year		
2009		
Diagnosis	Number of Discharges	Rate
Hypertension	6,435	10.0
Diseases of the heart	90,780	136.8
Cerebrovascular disease	19,340	28.9
Diseases of arteries - arterioles - and capillaries	9,811	14.7
Diseases of veins and lymphatics	5,162	8.0
Total for Selection	131,528	198.4
Rates per 10,000		
Age adjustment uses 2000 Standard Population		
Rotate	Download	

The **Procedures MICA** provides data on *Operations on the cardiovascular system*.

Procedures: Residents of Missouri		
	Year	
	2008	
Procedure	Number	Rate
Operations on the cardiovascular system	414,311	635.6
Rates Per 10,000 Age Adjustment Uses Year 2000 Standard Population		
Rotate	Download	

Click on the hyperlinked label to view more specific types of cardiovascular procedures.

Procedures: Residents of Missouri		
	Year	
	2008	
Procedure	Number	Rate
43. Heart valve procedures	2,523	3.9
44. Coronary artery bypass graft (CABG)	11,651	17.6
45. Percutaneous transluminal coronary angioplasty (PTCA)	20,804	31.5
46. Coronary thrombolysis	121	0.2
47. Diagnostic cardiac catheterization or coronary arteriography	136,411	208.3
48. Insertion or revision or replacement or removal of cardiac pacemaker or cardioverter/defibrillator	17,453	26.6
49. Other Operating Room heart procedures	5,680	8.9
50. Extracorporeal circulation auxiliary to open heart procedures	8,763	13.4
51. Endarterectomy: vessel of head and neck	2,750	4.2
52. Aortic resection: replacement or anastomosis	1,400	2.2
53. Varicose vein stripping: lower limb	908	1.5
54. Other vascular catheterization: not heart	66,055	103.8
55. Peripheral vascular bypass	2,349	3.6
56. Other vascular bypass and shunt: not heart	360	0.6
57. Creation or revision and removal of arteriovenous fistula or vessel-to-vessel cannula for dialysis	3,063	4.8
58. Hemodialysis	16,866	26.1
59. Other Operating Room procedures on vessels of head and neck	1,393	2.1
60. Embolectomy and endarterectomy of lower limbs	1,354	2.1
61. Other Operating Room procedures on vessels other than head and neck	79,433	120.9
62. Other diagnostic cardiovascular procedures	8,232	12.7
63. Other non-Operating Room therapeutic cardiovascular procedures	26,742	40.8
Total for Selection	414,311	635.6
Rates Per 10,000 Age Adjustment Uses Year 2000 Standard Population		
Rotate	Download	

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## Summer 2012 MICA Trainings

We were recently notified that we have once again received funding to provide MICA trainings around the state during summer 2012! (Funding is provided through CDC's Assessment Initiative Grant. To learn more about this grant and the programs implemented by grantees, visit <http://www.cdc.gov/ai/>.) Once the sessions are scheduled, we will distribute a registration e-mail to our mailing list in addition to providing that information in this newsletter.

This will likely be our **last** year of grant funding, as the five-year Assessment Initiative grant is ending in August 2012. While we will attempt to continue providing training opportunities in the future, our travel funds may be limited. As a result, during 2012 we would like to accommodate areas of the state that we have not visited in the past. We are willing to travel to your area but need access to a computer lab containing at least 15-20 workstations due to the hands-on nature of the trainings. (We also need attendance of at least 10-15 people in order to justify our travel expenses.) If there is a need for these trainings in your area, please let us know by e-mailing [andrew.hunter@health.mo.gov](mailto:andrew.hunter@health.mo.gov) or [becca.mickels@health.mo.gov](mailto:becca.mickels@health.mo.gov) so we can discuss options with you.

All of our courses are targeted to administrators, program managers, health educators, program planners, or other staff who need to understand and present data to inform policy or decision making related to priority health issues. Although initially designed for LPHAs, they may also be useful to community partners, including universities and colleges, elementary and secondary schools, hospitals, non-profit organizations, and any others who utilize health data. **Please note that the courses build upon each other so we recommend taking the courses in sequence if at all possible.**

**Course 1: Introduction to Profiles and MICA** – This course includes a review of the basic statistics used in the Community Data Profiles and MICA, as well as hands-on demonstrations of the trend line, graphing, download, and other features. Multiple exercises allow participants to practice the skills covered. (This course was first offered as *Community Health Assessment and Intervention Planning*.)

**Course 2: Health Data Analysis** – The *Health Data Analysis* course explains the process of using Profiles and MICA data to generate other statistics, such as percentage change and years of potential life lost. It also provides communication strategies and examples of how to clearly communicate health data through a variety of presentation formats, such as tables, charts, maps, and narrative. These strategies can be applied to grant proposals, health assessments, newsletters, health education materials, presentations, and other publications. During class, instructors will guide participants through creation of a sample community health assessment document.

**Course 3: Health Data Workshop** – Workshop sessions include a brief refresher of the *Introduction to Profiles and MICA* and *Health Data Analysis* courses. Instructors also demonstrate how to use spreadsheet and word processing software to more effectively create reports using Profiles/MICA data. During the afternoon, attending agencies will have an

opportunity to gather feedback from instructors and other agencies on their own county-specific documents. Each attending agency will be required to submit a five- to ten-page document (either a completed report or a draft) for discussion. Participants and instructors will apply topics from all three training courses to address the strengths and weaknesses of each report. **NOTE:** **If multiple staff from the same organization would like to attend the workshop, please make arrangements for all staff to attend the same session and submit only one document for review. PREREQUISITE: *Health Data Analysis***

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Improved Birth MICA

The Bureau of Vital Statistics recently enhanced the Birth MICA by adding two new indicators and another category of geographic analysis. These are:

Adequacy of Prenatal Care (Kotelchuck Index) – The Adequacy of Prenatal Care Utilization (APNCU) index developed by Milton Kotelchuck is increasingly being used as a standard metric of prenatal care adequacy in vital statistics. We have provided this indicator to allow users to compare Missouri's data to other states' data and to published birth outcome research. For more information on the APNCU index, you can read Dr. Kotelchuck's paper at http://www.mchlibrary.info/databases/HSNRCPDFs/Overview_APCUIndex.pdf. Our original adequacy of prenatal care indicator will continue to be available on the site but is now labeled as the Missouri Index.

Prepregnancy Weight for Height using Body Mass Index (BMI) – BMI has become a popular method of assessment of body fatness. These new BMI data will allow direct comparisons to current national guidelines on body fatness and suggestions on optimal prepregnancy health. The previous method of assessment, the percent above or below an ideal weight based on mother's height, remains on the Birth MICA.

Behavioral Risk Factor Surveillance System (BRFSS) Regions – We have added BRFSS regions to the list of geographies available in the Birth MICA, which already included selection options for the state, all 114 counties, St. Louis City, and cities with independent health departments. This will allow users to more easily track changes and differences in observed newborn and maternal health statistics across regions of the state.

All of these enhancements are available for all years (1990-2009) in the Birth MICA. We hope you enjoy these new data!

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## **New Link to Local WIC Providers (LWP) MICA**

A new link to the LWP MICA has been added on the main MICA website. In the past this link was only available on the Local WIC Providers – Data and Statistical Reports site.

The LWP MICA is accessible to WIC staff only. This MICA is password protected because users have the option of viewing data for individual WIC clinics and confidentiality is turned off. UserIDs and passwords have been provided to all WIC agencies by the state WIC office.

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THANK YOU!

Thank you to everyone who took the time to complete the recent survey on MICA usage. We are still analyzing the results but your answers will help us plan future trainings and make decisions on modifications to the tools.

Data Updates

Several of the Profiles and Data MICAs have been updated since the publication of the last newsletter.

Chronic Disease MICA – through 2009
Hospital Discharges, Charges and Days of Care MICA – through 2009
Inpatient Hospitalization MICA – through 2009
Medicaid Records MICA – through November 2011
Preventable Hospitalizations MICA – through 2009
Priorities MICA – 2009 Vital Statistics and Hospital/ER data added
TANF (Temporary Assistance for Needy Families) MICA – through December 2011
Assault Injury Profile – through 2009
Self-Inflicted Injury Profile – through 2009
Unintentional Injury Profile – through 2009

MCSHC Drawing Winner

Thanks to all of you who visited our exhibit at the Missouri Coordinated School Health Coalition Conference on December 2 at the Lodge of the Four Seasons on the Lake of the Ozarks. Many participants stopped by to learn more about the tools, including KC Wolf, the mascot for the Kansas City Chiefs football team!

Congratulations to Betsy VanScoyk, winner of our drawing for a \$25 gift certificate to Hy-Vee. Betsy is the Lead Nurse for the Orchard Farm School District in St. Charles. She was born and raised in Bridgeton and is now married with 4 kids and 5.2 grandchildren. For the past 18 years, Betsy has worked as a nurse in areas including Pediatric Intensive Care, Adult Oncology, and finally School Nursing, where she has served for the past 6 years. When asked about her interest in School Nursing, Betsy replied, “School Nursing has been a surprisingly challenging career. I have learned that the School Nurse is one of the community’s closest links to medical care and resources. The School Nurse is sometimes the only health care provider that many students ever see. We provide a vital link between student and community resources. I appreciate the job and the students, I am lucky.”



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## **MCH Program Staff Meeting**

Thanks to the DHSS District Nurse Consultants for inviting us to present at their staff meeting on January 26. Jessica Allhoff from the MCH unit within the Office of Epidemiology described the Missouri State Home Visiting Program and the needs assessment that was conducted in preparation for that program. (The full report is available on the DHSS website at <http://health.mo.gov/atoz/pdf/hvneedsassessment.pdf>.) We then discussed sources of county-specific data that could be used to measure the maternal and child health indicators referenced in the needs assessment.

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Recent/Upcoming Events

On February 15 we demonstrated the MICA tools to students participating in a community assessment course as part of the Master of Public Health Program at the University of Missouri – Columbia.

Internal sessions of the *Introduction to Profiles and MICA* and *Health Data Analysis* courses were provided to DHSS staff on February 22-23. Additional sessions will be offered to DHSS staff on March 13-14.

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## **Q&A**

A survey respondent submitted this comment about the Priorities MICA: “The Priorities ranking seemed to only take into account the rating I gave and did not appear to include any other data available on the indicator to help weight that decision.”

This is a comment we have received several times in the past. Priorities MICA was designed as a decision-making tool, not as a data-gathering tool like the Profiles and Data MICAs. The Priorities MICA actually does incorporate several types of data (including deaths, hospitalizations, ER visits, and survey responses) to help you make evidence-based decisions, but these data stay behind the scenes throughout most of the process. Although you do not see the data, the decisions you make as you work through the Priorities MICA steps impact how the data are used in the ranking formula. For example, in Step 4 you have the opportunity to choose which types of data should be considered by the ranking process.



4. Select criteria for determining priorities. The default is "All Criteria." If you want to select specific criteria, deselect "All Criteria" and select desired criteria.

|                                                                                |                                                                                   |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> All Criteria                               |                                                                                   |
| <input type="checkbox"/> <a href="#">Amenability to Change</a>                 | <input type="checkbox"/> <a href="#">Community Support</a>                        |
| <input type="checkbox"/> <a href="#">Death Trend Statistically Significant</a> | <input type="checkbox"/> <a href="#">Disability Burden</a>                        |
| <input type="checkbox"/> <a href="#">Hospital Days of Care</a>                 | <input type="checkbox"/> <a href="#">Number of Deaths</a>                         |
| <input type="checkbox"/> <a href="#">Number of Deaths Under 65</a>             | <input type="checkbox"/> <a href="#">Number of Hospitalizationa and ER Visits</a> |
| <input type="checkbox"/> <a href="#">Racial Disparity for ER Visits</a>        | <input type="checkbox"/> <a href="#">Racial Disparity for Deaths</a>              |

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In Step 6, you then have the opportunity to select the level of importance for each type of data you chose in Step 4. For example, perhaps Number of Deaths is more important to you than number of Hospital Days of Care. You could change the importance of Number of Deaths to High.

6. Select level of importance of criteria

|                                                                                                                                               |                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Amenability to Change</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low                 | <b>Community Support</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low                        |
| <b>Death Trend Statistically Significant</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low | <b>Disability Burden</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low                        |
| <b>Hospital Days of Care</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low                 | <b>Number of Deaths</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low                         |
| <b>Number of Deaths Under 65</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low             | <b>Number of Hospitalizationa and ER Visits</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low |
| <b>Racial Disparity for ER Visits</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low        | <b>Racial Disparity for Deaths</b><br><input type="radio"/> High <input checked="" type="radio"/> Average <input type="radio"/> Low              |

Once you complete the process and generate your list of priorities, you can drill down on the **Rank** label to view the data that until now have been utilized behind the scenes.

| Prioritization of Selected Diseases and Conditions in Missouri |      |              |
|----------------------------------------------------------------|------|--------------|
| Sex: Both Sexes, Race: All Races, Age Group: All Ages          |      |              |
| Disease/Condition                                              | Rank | Total Weight |
| Diabetes                                                       | 1    | 316.5        |
| Alcohol- and Substance-Related                                 | 2    | 301.0        |
| Heart Disease                                                  | 3    | 300.5        |

This very large table will show you the data for each of the criteria you selected in Step 4. For example, in Missouri there were 64,070 hospitalizations and ER visits for diabetes during 2007-2009. The selections you made throughout the process did not impact the data but did affect the weight assigned to each criterion. If you had indicated in Step 6 that Number of Deaths had High importance compared to all of the other criteria, then all diseases would have received higher weights for the Number of Deaths category.



| Disease/Condition              | Rank | Total Weight | Number of Hospitalizations and ER Visits 2007-2009 | Weight | Number of Deaths 1999-2009 | Weight | Number of Deaths Under 65 1999-2009 | Weight | Death Trend Statistically Significant 1999-2009 | Weight | Hospital Days of Care 2007-2009 | Weight |
|--------------------------------|------|--------------|----------------------------------------------------|--------|----------------------------|--------|-------------------------------------|--------|-------------------------------------------------|--------|---------------------------------|--------|
| Diabetes                       | 1    | 316.5        | 64070                                              | 27     | 16393                      | 37     | 4281                                | 34     | 0.00                                            | 29     | 137641                          | 31     |
| Alcohol- and Substance-Related | 2    | 301.0        | 92146                                              | 30     | 10493                      | 33     | 9596                                | 39     | 0.67                                            | 41     | 126064                          | 29     |
| Heart Disease                  | 3    | 300.5        | 518946                                             | 41     | 172202                     | 42     | 30645                               | 42     | -7.67                                           | 2      | 1124866                         | 42     |

If you have a question about the MICAs or Profiles, please submit it to [Becca.Mickels@health.mo.gov](mailto:Becca.Mickels@health.mo.gov) and we may answer it in a future newsletter.

### Practice Exercise

Many of you have asked for additional exercises so that you can practice the skills you learned at the MICA trainings. Here is a chance for you to do so. If you would like to check your work, a possible answer is posted on the DHSS website. A link to the answer is provided at the bottom of this section.

As a health educator in Miller County, you are preparing some materials for American Heart Month. You would like to include the prevalence of current high blood pressure in your county, because this is one of the most important risk factors for heart disease. After reviewing the MICA suite of tools, you remember that the County-Level Study is the only source of county-specific prevalence rates for many risk factors and conditions. Use the 2007 Health and Preventive Practices Profile to answer the following questions about current high blood pressure in Miller County and the state.

1. What is the age-adjusted rate for current high blood pressure in Miller County?  
\_\_\_\_\_
2. How does this rate compare to the state rate? \_\_\_\_\_
3. How does it compare to the rate for the Central Region, which contains Miller County?  
\_\_\_\_\_
4. While reviewing the current high blood pressure map from the Missouri 2007 Health and Preventive Practices Profile, you notice that there are a few pockets or clusters of counties with high rates. In general, where are these clusters located?  
\_\_\_\_\_  
\_\_\_\_\_
5. From the Missouri Profile, how could you determine the number of counties that have significantly higher or significantly lower rates than the state overall?  
\_\_\_\_\_
6. You want to know if the prevalence of current high blood pressure is increasing or decreasing in Miller County. Use the 2003-2007 CLS Comparison – Health and Preventive Practices Profile to determine how the Miller County rate changed during that time period. (NOTE: The 2007 Miller County rate on the Comparison Profile will differ from your answer to #1. Fewer interviews were completed in 2003, so Miller County

data was combined with Camden County data to produce a more stable and reliable bi-county rate.) What was the 2003-2007 percentage change for Camden-Miller? \_\_\_\_\_  
Was this change statistically significant, and, if so, how? \_\_\_\_\_

Visit <http://health.mo.gov/data/mica/MICA/solutions.html> to check the solution.

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About the MICA User Group Newsletter

The MICA User Group Newsletter was created in response to user requests for communication on updates to the MICA system, descriptions of new features, additional practice exercises, announcements of training opportunities, and any other new information about data that might help them perform their jobs more efficiently.

Newsletters will be published on a quarterly basis. If you have ideas for content, please send them to Andrew.Hunter@health.mo.gov or Becca.Mickels@health.mo.gov. We would especially like to feature stories describing your success at completing projects or obtaining grants using the MICA tools as well as interviews with public health professionals about your duties and how you use MICA to accomplish them.

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## How to Sign Up or Opt Out

If you have enjoyed this newsletter, please feel free to share it with your colleagues and community partners. We encourage them to sign up for the MICA User Group by sending an e-mail to [Andrew.Hunter@health.mo.gov](mailto:Andrew.Hunter@health.mo.gov) or [Becca.Mickels@health.mo.gov](mailto:Becca.Mickels@health.mo.gov) with the subject line MICA User Group. This will let us know to send newsletters to them directly so they do not miss any information. Also, we may occasionally distribute time-sensitive information on topics such as training opportunities via e-mail if the newsletter is not scheduled for publication prior to a registration deadline. Finally, the MICA User Group list helps us track the types of organizations using the tools, which is one of our performance measures.

If you would like to opt out of the MICA User Group, please send an e-mail with Unsubscribe in the subject line to [Becca.Mickels@health.mo.gov](mailto:Becca.Mickels@health.mo.gov). PLEASE NOTE: Depending on your position title, you may still receive other types of e-mail messages from us. For example, we are requested to send training information to all LPHA Administrators, even if they have unsubscribed from the MICA User Group.

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Contact Information

Andrew Hunter
Andrew.Hunter@health.mo.gov
573-526-0444

Becca Mickels
Becca.Mickels@health.mo.gov
573-751-6285